

TITLE

NATURAL PROMOTERS FOR GENE EXPRESSION IN C1  
METABOLIZING BACTERIA

ABSTRACT OF THE DISCLOSURE

5           Genes have been identified in the *Methylomonas* genome that are  
responsive to various metabolic and growth conditions. The identified  
responsiveness of these genes allows for the use of their promoters in  
regulated gene expression in C1 metabolizing bacteria. In particular, the  
10   *hps* promoter, which in its native state drives the expression of 3-hexulose-  
6-phosphate synthase (HPS), was found to be useful for directing  
expression of heterologous coding regions (e.g., crtZ) in the obligate  
methanotroph *Methylomonas* sp. 16a.

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